

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

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Claims 1-19 (canceled)

Claim 20 (previously presented): An antibody or antibody fragment which specifically binds to a protein of the TGF- $\beta$  family wherein said protein is encoded by a DNA comprising a nucleotide sequence selected from the following group:

(a) the nucleotide sequence as shown in SEQ ID NO:1,

(b) a nucleotide sequence which is degenerate as a result of the genetic code to the nucleotide sequence of (a), and

(c) fragments of (a) or (b) which encode a protein which has essentially the same cartilage or bone inducing activities as a mature protein encoded by the nucleotide sequence of SEQ ID NO:1.

Claim 21 (previously presented): The antibody according to claim 20, wherein said antibody is a monoclonal antibody.

Claim 22 (previously presented): An antibody or antibody fragment according to claim 20, which specifically binds to a protein of the TGF- $\beta$  family wherein said protein comprises the amino acid sequence according to SEQ ID NO:3.

Claim 23 (previously presented): The antibody according to claim 22, wherein said antibody is a monoclonal antibody.

Claim 24 (previously presented): An antibody or antibody fragment which specifically binds a protein of the TGF- $\beta$  family, wherein said protein is encoded by a DNA comprising a nucleotide sequence selected from the following group:

- (a) the nucleotide sequence as shown in SEQ ID NO:2,
- (b) a nucleotide sequence which is degenerate as a result of the genetic code to the DNA of (a),
- (c) a nucleotide sequence which hybridizes under the following stringent hybridization conditions to the DNA in (a), or (b): hybridization at a salt concentration of 4X SSC at 62°-66°C followed by a one-hour wash with 0.1X SSC and 0.1% SDS at 62°-66°C, and
- (d) fragments of (a), (b) or (c) which encode a protein which has essentially the same cartilage or bone inducing activity as a mature protein encoded by the nucleotide sequence of SEQ ID NO:2.

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Claim 25 (previously presented): An antibody or antibody fragment according to claim 24, wherein said protein comprises the amino acid sequence according to SEQ ID NO:4.

Claim 26 (previously presented): The antibody according to claim 25, wherein said antibody is a monoclonal antibody.

Claim 27 (previously presented): The antibody according to claim 24, wherein said antibody is a monoclonal antibody.

Claim 28: (Currently Amended) A method for ~~detecting~~ binding a protein of the TGF- $\beta$  family, comprising incubating an antibody or antibody fragment according to claim 20 with a sample suspected of containing a protein of the TGF- $\beta$  family, wherein a complex is formed by said antibody or antibody fragment binding said protein and

~~detecting any antibody/protein complex formed as an indication of the presence of said protein.~~

Claim 29 (previously presented): A method for detecting a protein of the TGF- $\beta$  family, comprising

incubating an antibody or antibody fragment which specifically binds to said protein of the TGF- $\beta$  family with a sample suspected of containing said protein, and

D detecting any antibody/protein complex formed as an indication of the presence of said protein,

wherein said protein is encoded by a DNA comprising a nucleotide sequence selected from the following group:

- (a) the nucleotide sequence as shown in SEQ ID NO:2,
- (b) a nucleotide sequence which is degenerate as a result of the genetic code to the DNA of (a),
- (c) a nucleotide sequence which hybridizes under the following stringent hybridization conditions to the DNA in (a), or (b): hybridization at a salt concentration of 4X SSC at 62°-66°C followed by a one-hour wash with 0.1X SSC and 0.1% SDS at 62°-66°C, and
- (d) fragments of (a), (b) or (c) which encode a protein which has essentially the same cartilage or bone inducing activity as a mature protein encoded by the nucleotide sequence of SEQ ID NO:2.

Claim 30 (previously presented): A kit for detecting a protein of the TGF- $\beta$  family, comprising an antibody or antibody fragment which specifically binds to a protein of the TGF- $\beta$  family, and a reaction buffer, wherein said protein is encoded by a DNA comprising a nucleotide sequence selected from the following group:

- (a) the nucleotide sequence as shown in SEQ ID NO:1,
- (b) a nucleotide sequence which is degenerate as a result of the genetic code to the nucleotide sequence of (a), and
- (c) fragments of (a) or (b) which encode a protein which has essentially the same cartilage or bone inducing activities as a mature protein encoded by the nucleotide sequence of SEQ ID NO:1.

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Claim 31 (previously presented): A kit for detecting a protein of the TGF- $\beta$  family, comprising an antibody or antibody fragment which specifically binds to a protein of the TGF- $\beta$  family, and a reaction buffer, wherein said protein is encoded by a DNA comprising a nucleotide sequence selected from the following group:

- (a) the nucleotide sequence as shown in SEQ ID NO:2,
- (b) a nucleotide sequence which is degenerate as a result of the genetic code to the DNA of (a),

(c) a nucleotide sequence which hybridizes under the following stringent hybridization conditions to the DNA in (a), or (b): hybridization at a salt concentration of 4X SSC at 62°-66°C followed by a one-hour wash with 0.1X SSC and 0.1% SDS at 62°-66°C, and

(d) fragments of (a), (b) or (c) which encode a protein which has essentially the same cartilage or bone inducing activity as a mature protein encoded by the nucleotide sequence of SEQ ID NO:2. --

Claim 32: (Currently Amended) The method according to claim 28, further comprising detecting said protein or said complex.

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